

Date: Tue, 28 Jun 94 23:34:31 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #717
To: Info-Hams

Info-Hams Digest Tue, 28 Jun 94 Volume 94 : Issue 717

Today's Topics:

[Long] Battery mah measurements & W&W (Was: Opinions on batteries?)
 BAY AREA FREQ'S WANTED
 FD summary WU7T
 FIELD DAY 1994 REPORT (2 msgs)
 IPS Daily Report - 28 June 94
 Mac/HAM BBS INFO Wanted
 Mobile HF Noise Problem
 New Amateur Needs Propagation Info...
 WANTED: Kenwood TS130V HF

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 29 Jun 1994 02:41:07 GMT
From: vigra.com!news.vigra.com!steve@network.ucsd.edu
Subject: [Long] Battery mah measurements & W&W (Was: Opinions on batteries?)
To: info-hams@ucsd.edu

--=}>> On 28 Jun 94 16:47:26 GMT, hamilton@BIX.com (hamilton on BIX) said:

> [...]
> I notice there are quite a number of ads in QST and elsewhere from
> vendors offering after-market batteries and chargers, so I'm curious
> to hear opinions on how much one can really save by going that route
> and whether it's worth it.

> Do the batteries really look cosmetically just like the originals

> from Icom? Anyone who feels quite strongly that one supplier is
> better/cheaper than another?

> I see a number of vendors offer rapid chargers, but neither the one
> offered by Icom nor the others I see advertized mention they provide
> an optional conditioning cycle as I have on the rapid charger for my
> Oki cellular phone. Have I missed something? Does anyone offer a
> charger with that feature (or is there a reason why not)?
> [...]

I just received my battery and charger from W & W Associates, and I've got mixed reactions after testing them.

The charger (Mastercharger I) is excellent! It seems to do all the right things, and it charges my Yaesu FNB-25 in about 30 minutes. It's based on the Phillips TEA1100 battery charger controller IC, which seems to be a smart piece of work. It's a true Delta-V charger with both fast charge and trickle states.

The Mastercharger I is \$85, comes with a 15vdc 1A power pack, and can run on unregulated 12v as well. It charges any nicad pack from 6 to 13 volts. You get to pick one drop-in adapter cup with the charger and extras (for other kinds of batteries) are \$16, but they would be a pain to switch (4 screws). I mounted a new external connector on mine, and run my own leads out to all kinds of other batteries. So far, no complaints.

I also bought one of their extended FNB-27(S) 12v 800mah batteries, but I can't say much good about it. It does have the standard micro phono charge input connector, unlike some other 3rd party batteries, but I will probably never use that anyway.

The physical fit is inferior to the Yaesu batteries. It's a bit snug in the radio, and the seams just don't line up nicely. I am being picky here, but if I had my pick, I would prefer the Yaesu case.

Also, the 800mah rating is a bit generous, if not deceitful. I put a fixed 117 ohm load on it and recorded the voltage over several hours. It went from full resting charge (13v) down to 5.5v over a period of 419 minutes. The curve shape was normal for a new nicad pack (12.0v at 352 minutes, downhill from there.)

My question is HOW do they rate the mAh of a battery? I called W&W and they said that they don't at all. They just copy the "800 mah" rating that Sanyo gives them on the cells. I'm not impressed.

If I take each measurement sample (1/2 second steps), measure the voltage, compute the current based on 117 ohms, and multiply the amps,

volts, and fraction of an hour, I get a sum total of 8.88205 VAhr under the curve (before it drops to 5.5v). I use 5.5v because that's where my FT-530 shuts itself off. I consider the battery dead before then.

Dividing by 8.88205 VAhr by 12.0v gives a total of .7402 Ah, which is less than the rated 800 mAh. In reality, I would say "much less", since the battery is probably useless for transmitting as soon as it can't support a load. (117 ohms isn't much of a load.)

Compare this to the Yaesu FNB-25 (7.2v 600 mah). It ran for 626 minutes before dropping to 5.5v (lower voltage, less current). Using the same area-under-curve computations, I get 4.882 VAhr, which is 678 mah at 7.2v. This is what I might expect from a new battery pack.

So, when they rate "mah", do they count every last morsel of electricity, right down to 0v? I don't think there's much there to count, but I certainly don't intend to reverse-charge any cells by running them that far down.

I have some PostScript plots of the discharge curves, if there's any interest. It's really remarkable to see the sharp knee of nicad death. Even more interesting is the discharge plot for an old "worn out" 7.2v battery. It takes a 1.2v dive very early in the discharge cycle, probably due to one weak cell. That cell is then reverse-charging for the rest of the discharge, which probably does wonders for it's degradation. Each cell then dies in turn, with a well-defined 1.2v step down. A new battery has all the steps at about the same time, while old ones seem to space them out. Neat stuff to see!

I'm now wondering if running the 12v pack down to 5.5v isn't somewhat damaging, since many of the cells have long since died and reversed by the time it gets there. I would imagine that the very first cell to go will be the first one to eventually get destroyed by the others. Makes me wish they built in a way to discharge each cell individually for conditioning.

Oh, here's part of a news posting I put up a week ago about W&W and Periphix with the company info in it. Have fun.

Happy Hacking!
-Steve

Steve Haehnichen
steve@vigra.com

Vigra, Inc. San Diego, CA
(619) 597-7080 x116 Fax: (619) 597-7094

-----8<-----8<---- CUT HERE ----8<-----8<-----

I'm expecting a package soon from W & W Associates, who also sell Ni-Cad packs and custom chargers. I wanted to shop Periphex, but they took two months to send me a catalog, and their prices aren't as good. Now that I have it, I'm surprised to see that they only resell Yaesu standard chargers, not their own. (NC-42 for \$99) I'm not impressed, but I'm only looking at Yaesu stuff right now, so other brands may be better served. Their max batteries for the FT-530 are 7.2v 1400mah and 12v 800mah, each listed at \$65.

W&W has a promising gizmo they call the Mastercharger I, which is some kind of smart ("Phillips Microprocessor") high-speed Delta-V charger good for any Ni-Cad from 6 to 13.2 volts. It takes adapter "cups" to charge most types of HT batteries, but extras cost \$16 each. I intend to make my own (unusual) wiring adapters since it looks like the charger output plug is pretty standard. The charger with one cup is \$85. Cigarette-lighter power cord is \$10. (I don't know if it does more than just pass 12v power, since the charger can do 13.2v batteries.)

They had 12v 800mah and 7.2v 1500mah oversized batteries for my FT-530, each \$49, which seems to be an excellent price.

I haven't received anything yet, so I can't comment on how well they meet their advertised spec, or how nice the charger is.

Here's info:

Periphex	W&W Associates
115-1B Hurley Rd.	800 South Broadway
Oxford, CT 06478	Hicksville (really!), NY 11801-5017
1-800-634-8132	1-800-221-0732
(203) 264-3985	(516) 942-0011

Date: 28 Jun 1994 16:35:16 -0700
From: ihnp4.ucsd.edu!swrinde!gatech!nntp.msstate.edu!olivea!news.hal.COM!
darkstar.UCSC.EDU!nic.scruz.net!garlic.com!garlic.com!not-for-
mail@network.ucsd.edu
Subject: BAY AREA FREQ'S WANTED
To: info-hams@ucsd.edu

johnw (johnw@bbs.dsnet.com) wrote:

: I got a list of the local police and shariffs departments from serveral
: of you but now I want even more!!! is there any that list the ones they
: refer to when they say go to channel 9 or goto cannel 3. This happens
: all the time with the san jose pd. They go there when they want to have

: a little more privacy or soemthing...

: Also I am still looking for the meaning of all the numeric codes they use
: e.g. 415 is a disturbance or fight I think, 10-51 is under the influence
: or crazy or somehting like that any list of the meaning s of therse would
: be greatly appreciated.

10-23: standby (wait, usually busy)
10-27: driver's license info.
10-28: vehicle registration info.
10-29: warrant check / vehicle info. check
 A= computer check only
 C=complete
10-30: does not conform to rules
10-32: drowning
10-33: alarm (silent, holdup, audible)
10-34: open door
10-35: open window
10-36: confidential information
10-39: status of...
10-40: is officer ___ available for a phone call
10-44: maternity (pregnancy, woman going into labor)
10-45: injured person
10-46: sick person
10-49: enroute to...(destination)
10-50: take / taking a report
10-51: intoxicated person (alcohol)
10-52: resuscitator
10-53: person down (for whatever reason)
10-54: possible dead body
10-55: coroner's case (dispatch county coroner)
10-56: possible suicide, "A" attempted suicide
10-57: shots fired...(where, how many)
10-58: garbage complaint
10-59: malicious mischief (same as 594PC)
10-62: meet the citizen
10-65: missing person
 J for juvenile, JX for female juvenile, MH mentally hand.
10-66: suspicious person (P package, X female)
10-67: person calling for help
10-70: prowler
10-71: person shot
10-72: person stabbed
10-73: how do you receive? (radio trouble, used with 10-1 and 10-2)
10-80: explosion
10-86: any traffic pending (calls or business)
10-87: meet the officer (talking and bullshitting)
10-91: animal problems, usually dead animal in roadway.
10-93: ETA
10-94: drill or inspection
10-95: pedestrian stop, normal
10-96: pedestrian stop, assistance needed, send code 3 fill unit/s
10-97: arrived on scene
10-98: assignment completed
11-24: abandoned vehicle

11-25: traffic hazard
11-26: abandoned or found bicycle
11-54: suspicious vehicle
11-79: vehicle accident, ambulance dispatched
11-80: vehicle accident, injury/s, no ambulance dispatched
11-81: vehicle accident, minor injury/s
11-82: vehicle accident, property damage only, no injury/s
11-83: vehicle accident, unknown type
11-84: traffic control
11-85: towtruck request
 "rotation tow" is next available towing company
11-95: vehicle stop, normal violation
11-96: vehicle stop, assistance needed, send code 3 fill unit/s
11-99: officer needs help, major emergency

148 : resisting arrest
187 : possible murder victim / suspect
207 : kidnapping
211 : robbery, A armed, PS purse snatch, STRONG ARM handgun or
struggle inv.
220 : assault with intent to commit felony sex crime/s (report)
240 : assault
241 : assault on an officer
242 : battery
 (240,242 often said together as "24242" for assault and battery)
243 : battery on an officer
245 : assault with a deadly weapon
246 : shooting into occupied vehicle or dwelling (apartment, house)
261 : rape, 261.5 illegal intercourse
273 : abuse, A child abuse, child beating, 273.5 spouse beating
277 : child stealing (inter-family type)
288 : sex offenses
300 : under jurisdiction, WI juvenile court
314 : indecent exposure (flasher and 17,s neighbor)
415 : disturbance (fight, gang, argument, loud noise / music, party)
417 : brandishing a weapon
451 : arson
459 : burglary
470 : forgery
476A: bad checks
484 : theft, GAS gas and run
487 : grand theft, this includes any item worth over \$1000
488 : petty theft
496 : receiving / possession of stolen property
499B: joyriding
518 : extortion

537 : defrauding an innkeeper
594 : malicious mischeif (gang activity, vandalism)
597 : cruelty to animals
601 : uncontrollable person, J / WI juvenile, T truant
602 : PC trespassing, WI juvenile violation of court order/s
647 : A lewd conduct, B prostitution, F drunk in public
653 : obscenity or harassment, M phone calls
904 : fire (specify type)
911 : 911 call
UNKNOWN unknown type or reason
HANGUP hangup on receipt
952 : report on conditions
956 : detail unfinished but available
3056 : parole violation
4000 : expiration, A registration
4532 : escape
5150 : mentally disturbed person
10751 : altered VIN # (vehicle identification #)
10851 : stolen vehicle, R recovered
10852 : tampering with vehicle
11300 : narcotics
11350 : possession of a controlled substance
11357 : possession of marijuana
11550 : drugs / narcotics (under the influence of)
12020 : illegal weapons, possession of
12025 : carrying a concealed weapon
12500 : unlicensed driver
14601 : driving with a suspended driver's license
20001 : hit and run, felony
20002 : hit and run, misdemeanor
22350 : speeding
22500 : parking violations
22507 : handicap parking violations
23103 : reckless driving (with direction of travel)
23109 : speed contest
23110 : throwing objects at vehicle
23152 : misdemeanor DUI, alcohol or drugs
23153 : felony DUI, alcohol or drugs
25662 : minor in possession of alcohol, BP in public

I have a "manual" of Santa Clara County Freqs in MSWord6.0 Format.
Mail me on how I should send this to you!

-Nick

nick@garlic.com

Date: Tue, 28 Jun 94 17:14:16 PDT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!
uhog.mit.edu!news.kei.com!ssd.intel.com!chnews!news@network.ucsd.edu
Subject: FD summary WU7T
To: info-hams@ucsd.edu

Intel Amateur Radio Club - Arizona section

CALLSIGN: WU7T CLASS: 2A

LOCATION: Milk Ranch Point, Arizona 8200 ft

Date: 28 Jun 1994 20:47:02 -0600

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!spool.mu.edu!
mnemosyne.cs.du.edu!nyx10.cs.du.edu!not-for-mail@network.ucsd.edu
Subject: FIELD DAY 1994 REPORT
To: info-hams@ucsd.edu

In article <2uq5jm\$hhf@chnews.intel.com>,
Jim Bromley, W5GYJ <jbromley@sedona.intel.com> wrote:
>I'll bet the microphone continued to work flawlessly! ;-)

Actually, the two ICOMs were radios #2 and 3. #1 was a Yaesu FT-107M; it would have worked fine on CW, but was found to have a dead mic amplifier (most likely). Nyah.

Next year, I bring a straight key, as well as a (working) Micromatic.

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can jmaynard@admin5.hsc.uth.tmc.edu | adequately be explained by stupidity.

"From now on, when someone asks you where you're from, you tell 'em
'Houston, city of champions!' -- Rudy Tomjanovich

Date: 28 Jun 1994 19:39:26 -0700

From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!convex!news.onramp.net!
news.sprintlink.net!rain.org!coyote!leigh@network.ucsd.edu
Subject: FIELD DAY 1994 REPORT
To: info-hams@ucsd.edu

Jay, next time your keyer dies in the field, you probably can wire up one set of contacts for use as a manual "sideswiper", which is still better than a wrist-busting straight key.

73 DE KM6JE/Leigh in Santa Barbara.

Date: Tue, 28 Jun 1994 23:15:39 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!newsxfer.itd.umich.edu!isclient.merit.edu!
msuinfo!harbinger.cc.monash.edu.au!news.cs.su.oz.au!metro!ipso!
rwc@network.ucsd.edu
Subject: IPS Daily Report - 28 June 94
To: info-hams@ucsd.edu

SUBJ: IPS DAILY SOLAR AND GEOPHYSICAL REPORT
ISSUED AT 28/2330Z JUNE 1994 BY IPS RADIO AND SPACE SERVICES
FROM THE REGIONAL WARNING CENTRE (RWC), SYDNEY.
SUMMARY FOR 28 JUNE AND FORECAST UP TO 1 JULY

IPS Disturbance Warning 17 was issued on 22 June and is current for
interval 24 June to 4 July

1A. SOLAR SUMMARY

Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 074/011

GOES satellite data for 27 June

Daily Proton Fluence >1 MeV: 3.6E+05
Daily Proton Fluence >10 MeV: 1.4E+04
Daily Electron Fluence >2 MeV: 5.8E+06
X-ray background: A5.2

Fluence (flux accumulation over 24hrs)/ cm²-ster-day.

1B. SOLAR FORECAST

	29 June	30 June	01 July
Activity	Very low	Low	Low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 075/013

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth: quiet to unsettled

Estimated Indices : A	K	Observed A Index 27 June
Learmonth	10	3232 2---
Fredericksburg	10	19
Planetary	10	23

Observed Kp for 27 June: 6452 3323

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
29 Jun	12	Unsettled.
30 Jun	12	Unsettled.
01 Jul	12	Unsettled.

2C. MAGNETIC COMMENT

Coronal hole related geomagnetic activity appears to have ceased. Expect any future activity to occur during local night hours.

3A. GLOBAL HF PROPAGATION SUMMARY

LATITUDE BAND

DATE	LOW	MIDDLE	HIGH
28 Jun	normal	fair	fair

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

LATITUDE BAND

DATE	LOW	MIDDLE	HIGH
29 Jun	normal	normal	fair
30 Jun	normal	normal	fair
01 Jul	normal	normal	fair

3C. GLOBAL HF PROPAGATION COMMENT

Due to magnetic activity declining HF conditions should improve.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were about 15% below predicted monthly values

Observed T index for 28 June: 15

Predicted Monthly T Index for June is 30.

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
29 Jun	25	Near predicted monthly values.
30 Jun	25	Near predicted monthly values.
01 Jul	25	Near predicted monthly values.

4C. AUSTRALIAN REGION COMMENT

Spread F observed during local night. Geomagnetic activity appears to have ceased so HF comms conditions should improve, some degradation still possible during local night.

--

IPS Regional Warning Centre, Sydney

|IPS Radio and Space Services

email: rwc@ips.oz.au fax: +61 2 4148331 |PO Box 5606
RWC Duty Forecaster tel: +61 2 4148329 |West Chatswood NSW 2057
Recorded Message tel: +61 2 4148330 |AUSTRALIA

Date: 29 Jun 1994 01:39:59 GMT
From: ihnp4.ucsd.edu!swrinde!emory!europa.eng.gtefsd.com!sundog.tiac.net!
news3.sprintlink.net!news.sprintlink.net!sun.cais.com!news@network.ucsd.edu
Subject: Mac/HAM BBS INFO Wanted
To: info-hams@ucsd.edu

Glad to repost.
The BBS is called Gallery's BBS and its on 24 hours a day at
202-298-6009.
Supports up to 9600bd connections.
CU there!

Date: Tue, 28 Jun 1994 23:58:50 GMT
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!vixen.cso.uiuc.edu!
usenet.ucs.indiana.edu!battin@network.ucsd.edu
Subject: Mobile HF Noise Problem
To: info-hams@ucsd.edu

You might check to see if the exhaust system is well bonded to ground, all along its length. This is a common area of poor connection that can generate noise in mobile installations, since exhaust pipes are generally mounted on rubber holders and can corrode at joints. A static check of continuity might not reveal a problem, since there might be a poor connection along the exhaust pipe that won't show up until the system is vibrated by driving the vehicle. So, the solution to this, if it _is_ the problem, is to solder jumpers to all sections of the exhaust system, and then to ground.

Also, I have read that tires can generate a static charge as they roll on the highway, which might lead to some noise. I don't know if this is really a source that could cause enough interference to communications to worry about. I have never noticed anything like it, myself.

--
Gene Battin
battin@iucf.indiana.edu
N9XAM

Date: Wed, 29 Jun 1994 00:14:44 GMT

From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!spool.mu.edu!news.clark.edu!
netnews.nwnet.net!serval.net.wsu.edu!spookey!kjones@network.ucsd.edu
Subject: New Amateur Needs Propagation Info...
To: info-hams@ucsd.edu

Hello all! I have only recently received my no-code tech license.
I am currently working on learning code.

I have a strong interest in propagation and am specifically interested in
finding source code/articles/books related to HF propagation prediction.

I am mostly interested in the formulas and the algorithms as I would like
to write my own simplified propagation prediction software.

Thanks in advance for any and all help in this matter.

Kent Jones
KC7BCU

+-----+
| Kent Jones, KC7BCU // / / |
| kjones@eeecs.wsu.edu (. .) |
+-----o00--(_)--00o-----+

Date: 28 Jun 94 20:15:20 EST
From: ccsua.ctstateu.edu!white@yale.arpa
Subject: WANTED: Kenwood TS130V HF
To: info-hams@ucsd.edu

Wanted: Kenwood TS130V 25W HF rig. Email to WHITE@CSUSYS.CTSTATEU.EDU or
WHITE@SLEEPY.CTSTATEU.EDU.

Date: (null)
From: (null)
Here are some of our adventures... >

Friday, just as we arrived at Milk Ranch Point, we spotted the first
wisps of smoke that would become the Camp Geronimo Boy Scout forest
fire. Maybe you heard about it in the news. We reported the fire
through the Mt. Ord repeater. Within minutes, a spotter plane
and a helicopter were on the scene.

Three slurry bombers arrived soon and spent the next 3-4 hours>
arresting the fire. Ground crews worked through the night and>

Saturday to cool the embers. I can give you the hotline number to the state fire coordinator's office in case you need to report such a fire.

Saturday, amidst radios and rag chewing, We found a 2 foot rattle snake in camp. We waited to see if it would wander away on its own, but no such luck. With 2 dogs, lots of children and night falling quickly, we decided we had to dispatch Mrs. (it was female) Sneaky Snake. We killed it, using nothing more than a knife and wits. Not wanting to waste nature, we skinned it (34 medium belt size), dressed it and barbecued it. Rattle snake tastes more like fresh fish than like chicken, contrary to what you may have heard.

Sunday morning, W5GYJ's YL cooked a gourmet breakfast that would make any Field Day Station envious.

Quick bits include...

- * The highest dipoles on iARC FD record.
- * A slingshot stolen by late-night visitors.
- * A hike to the Baker Butte fire tower.
- * Buying ice from one another.
- * KG7QJ, forgot to bring water and a hat (again).
- * KG7UU, spending Friday on a highway shoulder waiting for the AAA tire repair service.
- * Forest rangers visiting our camp throughout the weekend.
- * The club's TS440s HF rig breaking down (again).
- * Cool, comfortable evenings... excellent sleeping weather!
- * The pumpkin orange moon rising in the evenings.
- * KG7UU also worked Aruba Island on the SSB station when the forest ranger was watching, (I like to show off!!).
- * The little kids had a great time watching Walt Disney movies in the RV while the big kids played with their radios!!
- * We have pictures of the Satellite station "To die for!"
- * KG7QJ and KG7UU finally found a quiet spot on 40M's and were going good when WB7ASR had to tell them they were outside the band -OOPS!!!
- * 10 and 15 M's were open, 15 was even open well after dark!!!!
- * We should of had a sign in sheet just to see how many people showed up?? I guess about 25 or 30 ??? Maybe more??? Anyone know?? Care???
- * There were several roving film crews going around so stay tuned for the movie version of Field Day '94!!!!

The 147.405 intercom frequency saw lots of use on the hill, as did the 146.92 Mt. Ord repeater repeater. Everyone's HT got a workout. We decided early on that "PANI" (Points Are Not Important), which

significantly affected some of our operating traditions. Due to the scarcity of operators, both stations sat idle for hours on end until someone decided to spend some time operating. The flip side was that ops had plenty of opportunities to try their hand on the air. (KG7UU worked the Virgin Islands on 40m CW when he felt like it.) Rarely did an operator have an itch to transmit when there wasn't a mic or key waiting for him.

End of Info-Hams Digest V94 #717
